WHAT IS CLAIMED IS:

1. A photo mask, formed in a one-time writing method, comprising:

a plurality of transmission regions each formed of an exposed portion of a transparent substrate;

a half-tone region formed of an exposed portion of a half-tone phase shifting film provided on said transparent substrate; and

a light-shielding region formed of a region where a light-shielding film on said half-tone phase shifting film is formed, wherein

an outer periphery of each of a plurality of said transmission regions is surrounded by said half-tone region, and

in a densest pattern region having a plurality of said transmission regions arranged at a pitch of at most 0.32 μm where the pitch of said transmission regions is smallest in said photo mask, said half-tone region surrounding an outer periphery of each of a pair of said transmission regions is configured such that said light-shielding film is positioned between a pair of said transmission regions adjacent to each other.

2. The photo mask according to claim 1 wherein said transmission region in said densest pattern region is an aperture for forming a hole pattern.

3. The photo mask according to claim 1 wherein said transmission region in said densest pattern region is an aperture for forming a line and space.

4. A method of manufacturing a electronic device using the photo mask of claim 1.

5. A method of manufacturing a photo mask, comprising the steps of:

successively forming a half-tone phase shifting film and a light-shielding film on a surface of a transparent substrate;

forming a photoresistive material on said light-shielding film;

patterning said photoresistive material by photolithography to form in said photoresistive material an aperture exposing a partial surface of said light-shielding film;

successively removing said light-shielding film and said half-tone phase shifting film positioned immediately below said aperture to expose the surface of said transparent substrate to form a plurality of transmission regions each formed of an exposed portion of said transparent substrate;

shrinking said photoresistive material to enlarge an aperture size of said aperture to expose a partial surface of said light-shielding film;

removing said light-shielding film exposed from enlarged said aperture to expose a partial surface of said half-tone phase shifting film, thereby forming a half-tone region formed of an exposed portion of said half-tone phase shifting film and forming a light-shielding region where said light-shielding film is left; and

removing said photoresistive material, wherein

an outer periphery of each of a plurality of said transmission regions is formed to be surrounded by said half-tone region, and

in a densest pattern region having a plurality of said transmission regions arranged at a pitch of at most 0.32 μm where the pitch of said transmission regions is smallest in said photo mask, said half-tone region surrounding an outer periphery of each of a pair of said transmission regions is formed such that said light-shielding film is left between a pair of said transmission regions adjacent to each other.